



ANTHRAX

What is anthrax?

Anthrax is a serious disease caused by *Bacillus anthracis*, a bacteria that forms spores. A spore is a cell that is dormant (asleep) but may come to life under the right conditions. Spores can survive outside the body for long periods of time.

There are three types of anthrax, which involve the:

1. Skin (**cutaneous anthrax**) - The first symptom is a raised itchy bump that resembles an insect bite but within 1-2 days develops into a blister and then a painless ulcer with a characteristic black necrotic (dying) area in the center. Fever and painful swollen lymph nodes can be present.
2. Lungs (**inhalational anthrax**) - The first symptoms are flu-like and can include fever, fatigue, cough, muscle aches, nausea/vomiting, and sweating. Later symptoms include high fever, chest pain, severe breathing problems, and shock. (But don't assume that just because a person has cold or flu symptoms, he/she has inhalational anthrax.)
3. Digestive system (**gastrointestinal anthrax**) - The first symptoms are nausea, loss of appetite, bloody diarrhea, and fever, followed by bad stomach pain.

How do you get it?

Humans can become infected with anthrax by handling products from infected animals or by breathing in anthrax spores from infected animal products (like wool, for example). People can become infected with gastrointestinal anthrax by eating undercooked meat from infected animals.

Anthrax spores could be used by terrorists to intentionally cause illness and death. In 2001, anthrax was deliberately spread through the U.S. postal system by sending letters with powder containing anthrax spores. This caused 22 cases of anthrax, including 5 deaths.

Persons with inhalational anthrax cannot spread infection to others. With cutaneous anthrax, spread to others is very rare.

How soon do infected people get sick?

Symptoms can appear within 7 days of coming in contact with anthrax spores for all three types of the disease. For inhalation anthrax, symptoms can appear within a week or can take up to 42 days (and possibly longer) to appear.

How dangerous is anthrax? Is there a treatment?

Antibiotics are used to treat all three types of anthrax. Treatment is usually for 60 days. Success depends on the type of anthrax and how soon treatment begins.

Usually early treatment with antibiotics will cure cutaneous anthrax. Even if untreated, 80% of people with cutaneous anthrax do not die. Gastrointestinal anthrax is more serious, resulting in death in 25-60% of cases. Inhalational anthrax is much more severe. In the 2001 outbreak, about half of the cases of inhalational anthrax ended in death; in previous outbreaks, the death rate has been much higher. Early identification and treatment are important.

Can a person who is exposed to anthrax spores be treated so that they will not become sick?

If a person is thought to have recently breathed in anthrax spores, they will be given an antibiotic (such as ciprofloxacin or doxycycline) for 60 days, and may additionally be given 3 doses of anthrax vaccine, to prevent illness from occurring.

Ready in 3 is an emergency-preparedness program for Missouri. The Missouri Department of Health and Senior Services sponsors the program. **Ready in 3** aims to help residents and communities prepare for many types of emergencies from tornadoes to terrorism. For more information, visit www.dhss.mo.gov.

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Is there a vaccine for anthrax?

There is a vaccine for anthrax which may be given as described in the answer to the preceding question following exposure to anthrax spores. Routine anthrax vaccination of the general public is not recommended.

What should I do if I think I have anthrax?

If you are showing symptoms of anthrax infection, call your health-care provider right away.

What should I do if I think I have been exposed to anthrax?

Contact local law enforcement officials immediately if you think that you may have been exposed to anthrax. This includes being exposed to a suspicious package or envelope that contains powder.

What should I do if cases of anthrax start to occur in my community?

Your local health department and the Missouri Department of Health and Senior Services will provide you with information.

Adapted from CDC. *Anthrax: What You Need To Know*. July 31, 2003.

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